



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,383	09/13/2005	Nobuji Sakai	Toyo-3	3829

54884 7590 03/21/2007  
GOMEZ INTERNATIONAL PATENT OFFICE, LLC  
1501 N. RODNEY STREET  
SUITE 101  
WILMINGTON, DE 19806

EXAMINER
----------

HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
----------	--------------

1752

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

8

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/526,383	SAKAI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cynthia Hamilton	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/25/05, 5/31/05, 9/13/05.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 4, 7, 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/31/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5-6 and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yokoshima, et al (JP 63-251416 A) as evidenced by English abstract thereof from Derwent-ACC-No. 1988-335884 or evidenced by English abstract thereof from CAPLUS An 1989:214188. With respect to instant claims 1-3 and 5, the English abstract Derwent-ACC-No. 1988-335884 of (JP 63-251416 A) discloses a resin composition of (JP 63-251416 A) comprised of EHPE-3150 with a softening pt of 71 degrees C and diphenylsulphonium hexafluoroantimonate as photoacid generator and butylcellosolve acetate, i.e a solvent. Formula (1) found on page 103 of Nippon Kayaku is similar in structure to that found in instant claim 1 and applicants cited EHPE-3150 on page 14 of their specification as a commercially available product for their instant epoxy resin. Thus, the compositions of (JP 63-251416 A) are held to anticipate the instant compositions wherein the composition can inherently when dried to form a resist composition having a softening point falling within the claimed range. Further evidence is as the resin is one typified by applicants for the instant composition. With respect to instant claims 1-3 and 5-6 and 8-9, the compositions and methods set forth by Yokoshima et al as evidenced by the English abstract thereof from CAPLUS An 1989:214188 anticipate the instant compositions and methods wherein the solder is the material used to make the instant second layer and the metal plating. A full English translation of this document has been ordered.

Art Unit: 1752

3. Claims 1-3, 5-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohkuma et al (5,478,606). With respect to instant claims 1-3, 5-6 and 8, the method of Example 2 and the compositions used anticipate the instant composition and method wherein the composition of Table 2 is diluted with the solvent of Example 1 as set forth. EHPE-3150 is one of the epoxy resins set forth by applicants as commercially available for the instant composition. The second layer of material is the ink added to the ink jet recording head with respect to instant claim 8.
4. The examiner had carefully read US 6,106,998 but has found no resin reading on the structure claimed by applicants. There are bridged cyclic compounds but no cyclohexane compounds of the proper structure to read on the epoxy resin claimed. This reference was cited in a related EP search report as an X reference. There was no indication of softening temperature in the dried products either.
5. Claims 4, 7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

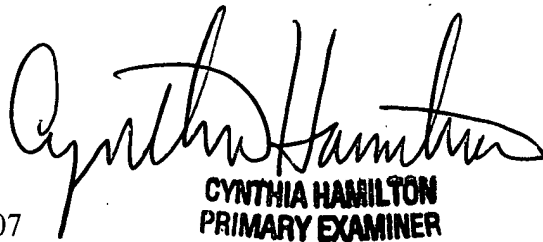
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331.

The examiner can normally be reached on Monday through Friday 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-0729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**CYNTHIA HAMILTON  
PRIMARY EXAMINER**

Cynthia Hamilton  
Primary Examiner  
Art Unit 1752

March 19, 2007